

**ABSTRACT****TILT PAD BEARING ASSEMBLY AND RETAINING PIN**

5 The invention provides a radial tilt pad bearing assembly comprising: an outer carrier (12); a plurality of tilt pads (14) retained within the outer carrier; and a corresponding plurality of retaining pins (50) to retain the tilt pads in given circumferential positions, each fixed in the bearing assembly outer carrier so as to abut a side face (38) of a cavity (28) in the corresponding tilt pad. At least one retaining pin (50) and the corresponding cavity (28) are  
10 respectively shaped such that, when in use, a clearance ( $c$ ) in a plane transverse to the axes of the bearing assembly and the tilt pad between the retaining pin (50) and the side face (38) is lesser at a first location (54) which lies substantially at the inner surface of the carrier (12), than at all corresponding locations at radially inner portions of the side face, with respect to the first location. A contact point (54, 54') between the retaining pin (50) and the tilt pad (14)  
15 when in use, lies substantially at the inner surface of the outer carrier (12). The tilt pad (14) is accordingly able to tilt without being substantially displaced circumferentially about the outer carrier (12). The present invention also provides a retaining pin for use in such a bearing system.